

**METHOD AND DEVICE FOR CALIBRATING
A MEASURING SYSTEM**

BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION

[0001] The present invention is situated in the field of measuring technology (metrology) and concerns a method and a device for calibrating a measuring system that is applicable for determining spatial position and orientation of objects and that comprises a measuring device with a laser tracker and an opto-electronic sensor, a system computer, and an auxiliary measuring tool.

DESCRIPTION OF RELATED ART

[0002] The term laser tracker or tracker in the present context is a device comprising means for generating an optical measuring beam, advantageously a laser beam, an optical system for aligning the measuring beam to a target point (e.g. cube edge prism) reflecting the measuring beam back to the measuring device in parallel, means for analysing the reflected measuring beam for determining the absolute or relative path length of the beam, and means for detecting the absolute or relative direction of the measuring beam. From the recorded data regarding beam path length and beam direction between laser tracker and reflector (target point), spatial co-ordinates of the reflector relative to the laser tracker can be calculated. The optical system of the tracker advantageously is equipped such that the measuring beam is able to automatically track a moving target point. Laser trackers of the Leica Geosystems company are available on the market. Other devices such